**Assessment Commentary Directions:** Respond to the prompts below by typing your responses within the brackets following each prompt. Do not delete or alter the prompts.

Please submit the following documents separately:

1. *Blank copy of your assessment*
2. *Answer key(s) for your assessment*
3. *3 student work samples with your feedback included (can be submitted as a single file or 3 separate files). Be sure to label below, on, and above level learners.*
4. *Optional – your original excel sheet can also be uploaded separately. It needs to be copied and pasted for 1c directly within this commentary.*

1. Analyzing Student Learning

a. Identify the specific standards/objectives measured by the assessment you chose for analysis.

[[CCSS.MATH.CONTENT.3.OA.C.7](http://www.corestandards.org/math/content/3/oa/c/7/)  
Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.

Lesson Objectives:

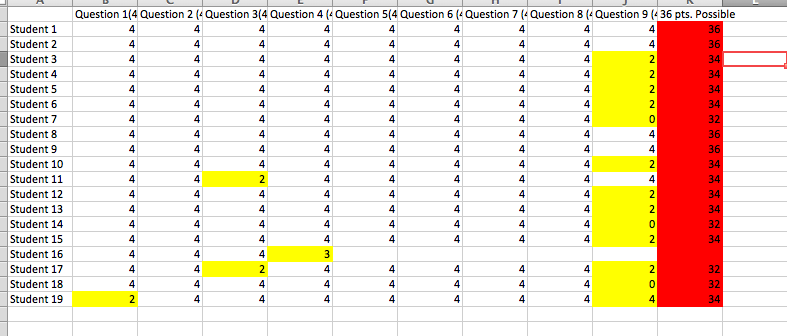
* Students will give a multiplication fact, state a related division fact and vice versa.
* Students will describe the inverse relationship between multiplication and division.]

b. Provide the evaluation criteria you used to analyze student learning.

[Lesson : Assessment Fact Family Street

Lesson – Introduction to Fact Families- This one page assessment consists of 9 problems. Each problem is worth 4 points. The explain problem on the back of the assessment is worth 4 points. This assessment is out of 36 points. Mastery- 30/36 (83%) None of the students failed this assessment. The explain problem on the back provided the most students with a challenge. These students received further instruction during whole group on November 19th and 20th.The students had a better understanding after these two days.]

b2. Provide a graphic (table or chart) or narrative that summarizes student learning for your whole class. Be sure to summarize student learning for all evaluation criteria described above.



[This chart shows the number of students (19). Student 16 is a special education student. This student had fewer problems to solve than the other students. This child also is exempted from the word problem. The boxes that are highlighted yellow are the questions that the students missed. This chart shows me that 1 student did not receive full credit on question 1. 0 students did not receive full credit on question 2. 2 students did not receive full credit on question 3. 1 student did not receive full credit on question 4.0 students did not receive full credit on questions 5, 6, 7, and 8. According to this chart, a different student missed each question, so there was not an evident pattern on the first 8 questions. 13 out of 19 students missed question 9.That means that these students did not understand the relationship of multiplication and division. These students received further instruction on November 19th and 20th during whole group math.]

c. Use evidence found in the **3 student work samples and the whole class summary** to analyze the patterns of learning for the whole class and differences for groups or individual learners relative to

* Conceptual Understanding- I drew two different ways to write a fact family on my anchor chart. Students helped me choose the numbers and create the problems. Students also created their own fact family house in their journal then shared with the class. I called on random students when creating different problems. I asked students, “ What property are you using when you create the two multiplication problems?” I also ask students to explain how they got their numbers and equations. This helped with misconceptions.

Whole Class- My assessment from my lesson measured how well students understand the concept of fact families.

Fact Family Street assessment asked students to use the three numbers given to create four different equations. Two multiplication equations and two division. Students were then asked to describe the relationship between multiplication and division on the back of their paper. This helped me to determine if students knew that they were inverse operations.

Individual- Number 9 on the back was the most missed question. Most students put division is multiplication backwards, which is correct, but not when describing the relationship. Students needed to mention that multiplication and division are inverse, or opposite, operations.

Procedural Fluency- Students have to be able to multiply and divide with 100. In previous classes, the children were taught how to multiply and had plenty of time to practice. They also learned about division with smaller numbers. The students were taught that division is multiplication backwards. In whole group math the students were taught the meaning of multiplication and division and several methods of doing multiplication and division. The assessment from the fact family lesson measured how well the students could multiply and divide, and how the three numbers were related to make 4 equations. Problems 1-8 had 4 parts worth 4 points. First the student had to create two multiplication problems then two division problems. This assessment determined if the students saw how the numbers were related.

Mathematical Reasoning or Problem Solving Skills- On the assessment questions 1-8 were fill in the blank questions. Question b gives the student three numbers ( 28, 7, 4). The student must create two multiplication problems and two division problems. The student has to realize they can use these numbers to create 4 different problems. Students have to remember the commutative property when creating their multiplication problems. The students had to think about how the numbers were related. The answer was not shown or easily given. The student had to use previous skills and new skills.

Consider what students understand and do well, and where they continue to struggle (e.g., common errors, confusions, need for greater challenge).

**2. Feedback to Guide Further Learning**

Refer to specific evidence of submitted feedback to support your explanations.

a. Explain how feedback provided to the 3 focus students addresses their individual strengths and needs relative to the learning targets measured.

[Student 17 (high student) received a 32/36 on the assessment.

My high student received a 88% on the Fact Family Street assessment. I provided positive written feedback on this student’s paper. I recommend this student complete Enrichment pages instead of the Reteaching and Practice. This student needs to be pushed and challenged with harder material. It is evident that this student understands fact families and the relationship between multiplication and division. This student is capable of great work, but has to be reminded to focus.

Student 19 (on level) received a 34/36 on the assessment.

From this student’s assessment I can tell the student understands fact families. I can tell the student knows the relationship between multiplication and division. On question b. the student started using the number 8, which wasn’t included within the three numbers given. I think the student may have gotten mixed up considering they got all the other problems correct. This student could have looked at the wrong numbers, or didn’t pay enough attention.

Student 18 (low student) received a 32/36 on the assessment.

Although this student received the same grade as the high level learner, the assessment was leveled. This might indicate the student needs an on level assessment next time. I can tell the student understands how to create equations from three related numbers. I can see he understands what a fact family is. Student 18 needs more instruction on how multiplication and division are related. This was addressed in whole group math on November 19th and 20th.]

b. How will you support students to apply the feedback to guide improvement, either within the learning segment or at a later time?

[Students who failed to answer number 9 correctly will receive extra instruction on how multiplication and division are related. They will also be put into small groups that will reteach multiplication, division, and fact families. All students got extra practice on their homework sheet that night and the next two nights. The students who struggled on the explain question benefitted from the extra practice and explaining.]

**3. Using Assessment to Inform Instruction**

a. Based on your analysis of student learning presented in prompts 1c–d, describe next steps for instruction

* for the whole class
* for the 3 focus students and other individuals/groups with specific needs

Consider the variety of learners in your class who may require different strategies/support (e.g., students with IEPs, English language learners, struggling readers, underperforming students or those with gaps in academic knowledge, and/or gifted students needing greater support or challenge).

[Whole Class- According to my analysis chart 13 out of 19 students missed question 9 on the Fact Family Street assessment. This will be a problem I will address whole class. It was an explain question. This problem was worth 4 points. Students had describe the relationship between multiplication and division. I bet the common mistake was students got confused with multiplication and division being inverse operations and division being multiplication backwards. 7 students wrote that division is multiplication backwards. I will go over this problem and give another similar problem for practice. This will benefit the whole class because this is one of the standards students should know for TCAP.

Individual Students- Only 4 students missed a problem on questions 1-8. This shows the students understand how to create a fact family and related equations. One student included a number that wasn’t part of the fact family. This could be because he looked at another problem or he didn’t pay attention. One student used the three numbers given incorrectly. Further instruction on the relationship of multiplication will be given to the 13 students. This will benefit students.

Student 17- This student is my high student. This student will be working on Enrichment handouts. This student needs to be challenged with more difficult material. I will give this student harder fact family and word problems that contain making a fact family. I have 4 other students that will be doing word problems and Enrichment handouts. I will let these students work independently or with partners.

Student 19- This student is my on level student. This student will be working more on creating fact families and equations. 11 other students will be working on reinforcing how to create fact families.

Student 18- This student is my below level student. This student will be working on determining the numbers needed to create a fact family and how they are related. They will also work on creating equations to go with the numbers These 4 students will receive one-on-on or small group instruction.]

1. Explain how these next steps follow from your analysis of student learning. Support your explanation with principles from research and/or theory.

[4 out of 5 of my below level students are RTI students. RTI is the practice of providing high-quality instruction/intervention matched to the student needs. These 4 students are in Tier III. One of these students receives modifications to his work. He gets fewer problems, more time, and things read to him First, these students received whole group instruction on November 18th, 19th, and 20th. Multiplication, division, and fact families are on the TCAP at the end of the year.

I will use scaffolding with my low and on level students. I know what level my students can perform on alone and with support and guidance. I will utilize Vygotsky’s ZPD (1976) and make sure each child will be able to successfully be able to function independently. I will use instructional strategies to scaffold such as: hints and prompts.]